comparison using patient-level data suggests significantly higher SVR24 response rates for patients treated with simeprevir compared to telaprevir.

PIN17

SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS OF TEDIZOLID FOR THE TREATMENT OF ACUTE BACTERIAL SKIN AND SKIN STRUCTURE INFECTION (ABSSSI) DUE TO METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

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OBJECTIVES: Tedizolid is a novel oxazolidinone approved for the treatment of ABSSSI. A network meta-analysis (NMA) was conducted to estimate the relative effectiveness and safety of tedizolid compared to other antibacterials for suspected or documented MRSA-associated ABSSSI. **METHODS:** A systematic review identified relevant randomized controlled trials of tedizolid and other antibacterials approved to treat complicated skin infections (cSSSI, cSSTI, and ABSSSI) caused by suspected or documented MRSA in adults (vancomycin, linezolid, daptomycin, teicoplanin, tigecycline, ceftaroline, and telavancin). Two independent reviewers extracted study characteristics and outcomes, including clinical response at post-treatment evaluation (generally 7-14 days following therapy) and adverse events (AE)-related treatment discontinuations. Bayesian NMA was conducted for each outcome using fixed and random effects models. **RESULTS:** 3,618 records were identified. 15 trials met inclusion criteria. In fixed effect models, tedizolid had higher odds of clinical response at PTE or TOC than vancomycin (odds ratio [OR]: 1.6 [95% credible interval: 1.1, 2.5]), corresponding to absolute response rates of 87% [9%, 100%] and 80% [5%, 100%], respectively. No statistically significant differences in odds of clinical response between tedizolid and other comparators were observed. Results were similar when limited to intent-to-treat (ITT) or microbiological ITT analysis populations. In an ad hoc analysis of MRSA-only populations, ORs for response were 1.0, 1.2, 2.1, 1.1, 3.2, and 1.6 for tedizolid versus linezolid, ceftaroline, daptomycin, telavancin, tigecycline, and vancomycin, respectively. , . Absolute rates of discontinuation due to AEs ranged from 0.3% [0%, 49%] for tedizolid to 1.2% [0%, 81%] for telavancin, but no comparisons reached statistical significance. Results from fixed and random effects models generally were consistent. **CONCLUSIONS:** These findings suggest that tedizolid offers an alternative treatment option for serious skin infections caused by suspected or documented MRSA. This study is subject to limitations inherent to all NMAs, and the results should be interpreted accordingly.

PIN18

CLINICAL COMPARISON OF FULL COURSE INTRAVENOUS OR ABBREVIATED ORAL ANTIBIOTICS IN HOSPITALIZED PATIENTS WITH METHICILLIN-RESISTANT S. AUREUS (MRSA) SKIN AND SOFT TISSUE INFECTIONS

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OBJECTIVES: Orally active MRSA drugs are utilized in hospitalized patients for treatment of skin infections to abridge intravenous (IV) therapy, but clinical evidence of their effectiveness is needed. Our goal was to compare health outcomes in hospitalized adult patients treated with a full course of IV or abbreviated oral antibiotics for MRSA skin infections. **METHODS:** This was a single center, retrospective cohort study of hospitalized patients with culture positive MRSA skin infections managed from 2009-2013. Patients were stratified based on receipt of full course IV antibiotics or abbreviated oral antibiotics during the hospital stay. Treatment failure was defined as one of the following within 90 days of initiation of treatment: 1. additional MRSA culture from any site, 2. change in antibiotic therapy, 3. secondary incision and drainage. Statistical analysis included multivariate logistic regression models to assess for predictors of failure. **RESULTS:** Among 101 patients with MRSA skin infections, 60 received a full course of IV antibiotics and 41 converted to oral antibiotics (minocycline or doxycycline [n=34]). Treatment failure at 90 days was 35%, occurrence of failure was similar among patients with a full course of IV therapy and those abbreviated to oral therapy (21 of 60 [35%] vs. 14 of 41 [34%], p = 0.93). The length of IV therapy was significantly less in patients treated with oral therapy (6.5 days vs 4 days, p< 0.01). In the multivariate adjusted model, treatment with oral antibiotics was not associated with failure. Predictors of failure included Hispanic ethnicity (aOR 15.8; 95% CI, 1.8-138.9, P = 0.01) and a trend towards significance for ulcer skin infections (p = 0.052). **CONCLUSIONS:** Although hospitalized patients are commonly treated with full course IV antibiotics for MRSA skin infections, we found similar outcomes in those converted to oral antibiotics. Treatment failures were associated with Hispanic ethnicity and ulcer skin infections.

PIN19

RESPIRATORY RELATED HOSPITALIZATIONS IN PREMATURE INFANTS PROPHYLAXED WITH PALIVIZUMAB IN THE CANADIAN REGISTRY OF PALIVIZUMAB (CARESS)

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BACKGROUND: The efficacy and safety of palivizumab for respiratory syncytial virus (RSV) prophylaxis in healthy premature infants ≤35 weeks gestational age (WGA), was confirmed in the IMpact, randomized trial. However, there are limited data on the incidence of hospitalization for respiratory related events in prophylaxed infants in the lower GA sub-categories. **OBJECTIVES:** The primary objective is to evaluate the incidence of respiratory illness (RIH) and RSV-specific hospitalizations (RSVH) in high-risk premature infants who received palivizumab. **METHODS:** Data were collected from premature infants ≤35 completed WGA enrolled in the CARESS registry, who received at least one palivizumab injection between the 2005-2014 RSV seasons. Palivizumab utilization, compliance, and outcomes related to respiratory infection events were assembled monthly. Cox regressions were performed to determine hazard ratios (HRs) for hospitalization. **RESULTS:** 12,137 infants (57.6% male, mean (SD) birth weight = 1585 (621)g, mean (SD) GA = 31.0 (2.9) weeks) were recruited and GA was categorized according to completed weeks: ≤ 26 weeks, 27-28 weeks, 29-30 weeks, 31-32 weeks, and 33-35 weeks. Risk of RIH (HR, 95%CI) was significantly lower only in premature infants with GA ≤ 26 weeks (HR=0.6, 0.4-1.0, p = .04). Risk of RSVH was significantly higher in infants with GA ≤ 26 weeks (HR = 4.2, 2.3-7.8, p <.0005), 27-28 weeks (HR = 2.3, 1.2-4.1, p = .008), and 29-30 weeks (HR = 1.8, 1.0-3.0, p = .04) using 31-32 WGA as the comparator. **CONCLUSIONS:** Infants ≤ 30 WGA who received palivizumab had a significantly higher hazard for RSVH than those >30 weeks. Lower RSVH hazard ratios in infants with higher GAs (>30 weeks) are in agreement with the efficacy of palivizumab in this cohort (>80% reduction in RSVH [32-35 weeks], IMpact trial) demonstrating that premature infants with lower GA are at highest risk following prophylaxis.

PIN21

MODELING SURVIVAL IMPACT OF HAZARDOUS DRINKING AND TREATMENT TO REDUCE HAZARDOUS DRINKING AMONG INDIVIDUALS WITH HIV INFECTION: A MONTE CARLO SIMULATION MODEL

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OBJECTIVES: Modifiable factors contributable to disease progression and survival among people with HIV infection are of particular importance for HIV research. Hazardous drinking is one such variable associated with delayed linkage in care, increased HIV disease progression, worsened comorbidities (e.g., liver diseases). Curtailing hazardous drinking may have important survival implications. Few studies have explored the relationship among hazardous drinking, alcohol treatment and survival. We developed a computer simulation model predicting the survival influence of hazardous drinking and usage of alcohol treatment among individuals with HIV infection. **METHODS:** We simulated cohorts of 50,000 antiretroviral-naïve hazardous drinkers with newly diagnosed chronic HIV infection. The model incorporated the influence of ART and distinguished AIDS-related deaths and non-AIDS-related deaths (CVD, Cancer, Liver, and others). We modeled the impact of hazardous drinking on survival via its influence on viral suppression, and subsequent AIDS-related deaths, and mortality of various non-AIDS-related deaths. The role of alcohol treatment on survival was mediated through changes in hazardous drinking. The simulation model was a probabilistic, Monte-Carlo model created by Microsoft Excel 2010, and Oracle Crystal Ball 11. **RESULTS:** Hazardous drinking substantially reduced mean survival years and increased risk of dying due to liver diseases. For patients aged 35, hazardous drinkers had an average of 2.9 years lower in expected life years compared with those without hazardous drinking (30.4 years vs. 33.3 years). Receipt of alcohol treatment, regardless of behavioral treatment or pharmacotherapy, saved an average of 0.3 to 1.2 years per hazardous drinker when utilization rate varying from 10% to 80%. **CONCLUSIONS:** This study quantified deleterious effect of hazardous drinking in survival and provided evidence supporting the survival benefits of using alcohol treatment. Given the high prevalent of hazardous drinking among individuals with HIV infection, interventions to decrease alcohol use may have great public health implications.

PIN22

PHARMACOEPIDEMIOLOGY OF CLOSTRIDIAL COLLAGENASE OINTMENT FOR THE TREATMENT OF DIABETIC FOOT ULCERS IN OUTPATIENT CARE SETTINGS

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OBJECTIVES: Identify patient and clinical characteristics in the diabetic foot ulcer (DFU) population and examine patterns of enzymatic debridement utilization. **METHODS:** Retrospective, de-identified electronic medical records from 2007-2013 were extracted from the Intellicure Limited Data Set (I-LDS). The I-LDS extracts records from 96 hospital-based outpatient wound centers. Patient, wound and encounter level characteristics were examined. The treatment of interest was enzymatic debridement with clostridial collagenase ointment (CCO). **RESULTS:** A total of 10,359 patients, 21,677 wounds, and 222,861 encounters for DFU were identified. The majority of patients was male (60.9%), Caucasian (63.5%), and reported Medicare as their primary insurance (51.1%). Of the 21,677 wounds, approximately 16.9% received CCO (n=3,670). Overall, the mean wound surface area was significantly larger (p<0.0001) in DFUs treated with CCO (7.6cm2) compared to wounds not treated with CCO (5.4cm2), respectively. Wounds treated with CCO had significantly more (p<0.001) debridements of all methods (5.4, SD=6.3) relative to the overall population (4.3, SD=6.1). Problems treated with CCO were significantly more likely (p<0.0001) to have an infection (63.4%) compared to the overall DFU population (50.9%). The average number of visits where CCO was administered was 10.2 (SD=9.7) and the average days of use with CCO was 53.2 days (SD=68.9). The average number of CCO tubes used by patients was 2.4 (SD=0.9). Mean days in service for CCO-treated wounds was 129.5 (SD=149.1), which was significantly higher compared to days in service for non-CCO treated wounds (102.6, SD=151.8). **CONCLUSIONS:** Wounds treated with CCO were larger, more likely to receive debridement of all methods, and more likely to be infected relative to the overall DFU population. Results from this analysis indicate that health care providers are using CCO in more severe, difficult-to-heal DFUs.

PIN23

PHARMACOEPIDEMIOLOGY OF CLOSTRIDIAL COLLAGENASE OINTMENT FOR THE TREATMENT OF PRESSURE ULCERS IN OUTPATIENT CARE SETTINGS

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OBJECTIVES: Identify patient and clinical characteristics in the pressure ulcer (PU) population and examine patterns of enzymatic debridement utilization. **METHODS:** Retrospective, de-identified electronic medical records from 2007-2013 were extracted from the Intellicure Limited Data Set (I-LDS). The I-LDS extracts records from 96